IN THE CLAIMS:

Please cancel claims 1-22 without prejudice or disclaimer, and substitute new Claims 23-44 therefor as follows:

Claims 1-22 (Cancelled).

23. (New) A method of managing traffic in an optical network, comprising:

tagging a first portion of traffic in ingress to at least one node of said network as high priority traffic and a second portion of traffic in ingress to said at least one node as low priority traffic;

configuring at least a portion of said network so that a first portion of switched circuits exiting from said at least one node is adapted to carry said high priority traffic and a second portion of switched circuits exiting from said at least one node is adapted to carry said low priority traffic;

detecting a burst of said high priority traffic;

after said step of detecting said burst, acting on at least a portion of said low priority traffic, so as to deplete at least one interface of said at least one node, connected to at least one switched circuit of said second portion of switched circuits;

tearing down at least one switched circuit connected to said at least one depleted node interface;

setting up at least one new temporary switched circuit starting from said at least one depleted node interface; and

forwarding a portion of said high priority traffic to said at least one depleted node interface, and, thereby, to said new temporary switched circuit.

24. (New) The method according to claim 23, wherein said step of detecting a burst comprises:

estimating a first bandwidth of said high priority traffic in a first predetermined time interval; and

comparing said first bandwidth with a first predetermined threshold.

25. (New) The method according to claim 24, wherein said step of acting on at least a portion of low priority traffic is carried out if said first bandwidth exceeds said first predetermined threshold.

26. (New) The method according to claim 24, wherein said step of estimating said first bandwidth comprises:

measuring a bandwidth of said high priority traffic in a second predetermined time interval; and

forecasting said first bandwidth in said first time interval from said measured bandwidth.

27. (New) The method according to claim 24, further comprising detecting an end of a burst of said high priority traffic.

28. (New) The method according to claim 27, wherein step of detecting an end of said burst of said high priority traffic comprises:

estimating a second bandwidth of said high priority traffic in a third predetermined time interval; and

comparing said second bandwidth with a second predetermined threshold.

29. (New) The method according to claim 28, wherein said step of estimating said second bandwidth comprises:

measuring a bandwidth of said high priority traffic in a fourth predetermined time interval; and

forecasting said second bandwidth in said third time interval from said measured bandwidth.

30. (New) The method according to claim 28, wherein said first threshold is higher than or equal to said second threshold.

31. (New) The method according to claim 27, further comprising:

after said step of detecting said end of burst, acting on said forwarded portion of said high priority traffic so as to route said forwarded portion toward at least one switched circuit of said first portion of switched circuits;

tearing down said at least one new temporary switched circuit; and

restoring said at least one torn down switched circuit of said second portion of switched circuits.

32. (New) The method according to claim 31, wherein said step of acting on said forwarded portion of said high priority traffic is carried out if said second predetermined threshold exceeds said second bandwidth.

33. (New) An optical network comprising:

at least one node comprising a router adapted to tag a first portion of traffic in ingress thereof as high priority traffic and a second portion of traffic in ingress thereof as low priority traffic;

at least one network controller adapted to configure at least a portion of said network in order to have a first portion of switched circuits exiting from said at least one

node adapted to carry said high priority traffic and a second portion of switched circuits exiting from said at least one node adapted to carry said low priority traffic;

said network controller also comprising a traffic controller adapted to detect a burst of said high priority traffic and to thereby send a first warning signal;

said router also being adapted to act on at least a portion of said low priority traffic in case of receipt of said first warning signal, so as to deplete at least one node interface, connected to at least one switched circuit of said second portion of switched circuits;

said network controller also being adapted to tear down at least one switched circuit connected to said depleted node interface, in case of receipt of said first warning signal;

said network controller also being adapted to set up at least one new temporary switched circuit starting from said at least one depleted node interface; and

said router also being adapted to forward a portion of said high priority traffic to said at least one depleted node Interface, and, thereby, to said new temporary switched circuit.

34. (New) The optical network according to claim 32, wherein said traffic controller is adapted to:

estimate a first bandwidth of said high priority traffic in a first predetermined time interval; and

compare said first bandwidth with a first predetermined threshold.

35. (New) The optical network according to claim 34, wherein said traffic controller is adapted to send said first warning signal if said first bandwidth exceeds said first predetermined threshold.

36. (New) The optical network according to claim 34, wherein said traffic controller is also adapted to:

measure a bandwidth of said high priority traffic in a second predetermined time interval; and

forecast said first bandwidth in said first time interval from said measured bandwidth.

37. (New) The optical network according to claim 34, wherein said traffic controller is also adapted to detect an end of said high priority traffic burst and thereby to send a second warning signal.

38. (New) The optical network according to claim 37, wherein said traffic controller is also adapted to:

estimate a second bandwidth of said high priority traffic in a third predetermined time interval; and

compare said second bandwidth with a second predetermined threshold.

39. (New) The optical network according to claim 38, wherein said traffic controller is also adapted to:

measure a bandwidth of said high priority traffic in a fourth predetermined time interval; and

forecast said second bandwidth in said third time interval from said measured bandwidth.

40. (New) The optical network according to claim 38, wherein said first threshold is higher than or equal to said second threshold.

41. (New) The optical network according to claim 37, wherein:

said router is also adapted to act on said forwarded portion of said high priority traffic in case of receipt of said second warning signal, so as to route said forwarded portion toward at least one switched circuit of said first portion of switched circuits;

said network controller is also adapted to tear down said at least one new temporary switched circuit, in case of receipt of said second warning signal; and

said network controller is also adapted to restore said at least one torn down switched circuit of said second portion of switched circuits, in case of receipt of said second warning signal.

42. (New) The optical network according to claim 33, wherein said at least one node comprises switching equipment.

43. (New) The optical network according to claim 42, wherein said switching equipment comprises a digital cross connect, or an optical cross connect, or an add/drop multiplexer, or a fiber switch.

44. (New) The optical network according to claim 42, comprising optical fibers connected to said switching equipment.